

# STATE OF NEVADA

Department of Conservation & Natural Resources

Jim Gibbons, Governor Allen Biaggi, Director

Leo M. Drozdoff, P.E., Administrator

DIVISION OF ENVIRONMENTAL PROTECTION

June 30, 2008

Barrick Goldstrike Mines Inc. Attn: Andy Cole Environmental Manager P.O. Box 29 Elko, NV 89803

Re: Final Air Quality Operating Permit Minor Modification #AP1041-0739.02 for Barrick Goldstrike Mines, Inc. FINA0005

Dear Mr. Cole:

The application submitted by the Barrick Goldstrike Mines Inc. for a Minor Modification of Class I (Title V) Air Quality Operating Permit No. AP1041-0739.02 has been reviewed by the Nevada Division of Environmental Protection, Bureau of Air Pollution Control (NDEP-BAPC) under legal authority from Nevada Revised Statutes 445B.100 through 445B.640 and pursuant to regulations in Nevada Administrative Code 445B.001 through 445B.3689. Based on NDEP-BAPC's review and recommendation, I am hereby issuing modified Air Quality Operating Permit No. AP1041-0739.02, with appropriate restrictions. Modified permit No. AP1041-0739.02 must be posted conspicuously at or near the source.

Enclosed is your copy of the modified pages to Operating Permit # AP1041-0739.02. Air Quality Operating Permit No. AP1041-0739.02 was modified to add specific operating conditions for pressure relief vents in System 19, Section VI.S; remove "lime" from the System 63 description; add soda ash as a material that can be used in System 63, Section VIIA; and add a new autoclave mixing tank, System 106, emission unit S2.319. In accordance with Nevada Revised Statute 445B.340, you may appeal the department's action of issuance of this operating permit within 10 days after you receive the permit. Appeals may be filed with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada, 89701-5249, telephone 775-687-9308.

Barrick Goldstrike Mines, Inc. is no longer required to comply with the 3 minute opacity SIP requirement (NAC 445.721). This SIP requirement has been rescinded by EPA and is no longer an applicable requirement. NDEP-BAPC will remove this SIP requirement and update other SIP requirements in Barrick Goldstrike Mines, Inc. Class I Air Quality Operating Permit AP1041-0739.02 at a later date.

Please review your permit carefully to understand all conditions, restrictions, monitoring and recordkeeping requirements. If you have any questions, please call Randy Phillips, of my staff, at (775)687-9362 or me at (775)687-9391.

Sincerely,

Matthew A. DeBurle

Supervisor, Permitting Branch Bureau of Air Pollution Control

MAD/rp
Certified Mail No. 7007 2560 0000 5997 7554
Enclosures: Final Revised Permit Pages
cc (w/enclosures): Kim Wolf, Barrick Goldstrike Mines Inc.

cc (w/enclosures): Gerado Rios, Chief (A-5-1), New Source Section, Air & Toxics Division, U.S. EPA, Region IX









# **BUREAU OF AIR POLLUTION CONTROL** Facility ID No. A0005

# Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT GENERAL REQUIREMENTS

<b>Issued to: BARRICK</b>	<b>GOLDSTRIKE MINES,</b>	INC., as Permittee

Emission Unit List (continued)

- BB. System 54 Surface Concrete Batch Plant Cement/Fly Ash Silo Removed from permit November 2006
- BC. System 55 Surface Concrete Batch Plant Removed from permit November 2006
- BD. System 56 Surface Concrete Batch Plant Removed from permit November 2006
- BE. System 57 Removed: Not constructed, removed from inventory November 19, 1999.
- BF. System 58 Surface Concrete Batch Plant Removed from permit November 2006
- BG. System 59 Meikle Shotcrete Load-out Station
- 1.325 Delivery truck (discharge)
- BH. System 60 Meikle Shotcrete Loadout Station
- 1.326 Screw conveyor (discharge)
- Bl. System 61 Carbon Reactivation Kiln #2
  - 2.004.1 Carbon kiln #2 drum
- S 2.004.2 Carbon kiln #2 burner
- BJ. System 62 Meikle Production Shaft
- PF 1.101 Skips - discharge/transfer to upper chute
- PF 1.102 Upper chute discharge - transfer to one of two transfer cars
- PF 1.103 Transfer cars discharge - transfer to one of two lower chutes
- PF Bins loading - lower chutes discharge to one of two bins 1.104
- 1.105 Bins discharge - transfer to haul truck

#### BK. System 63 - Autoclave Silos #1 through #4

S	2.028	SII0 #1,	250 ton,	loading

- PF 1.018 Silo #1, 250 ton, discharge
- S 2.029 Silo #2, 500 ton, loading
- 1.019 Silo #2, 500 ton, discharge S 2.030 Silo #3, 500 ton, loading
- PF 1.020 Silo #3, 500 ton, discharge
- S 2.031 Silo #4, 1,000 ton, loading
- PF 1.021 Silo #4, 1,000 ton, discharge



# **BUREAU OF AIR POLLUTION CONTROL** Facility ID No. A0005

# Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT GENERAL REQUIREMENTS

### Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Emission Unit List (continued)

DA. System 101 - Meikle Shotcrete Loadout Station Extension

1.479 Conveyor #2 Discharge 1.480 Conveyor #3 Discharge

DB. System 102 - Rodeo Shotcrete Loadout Station Silo #1

2.088 Silo #1 Loading

PF Silo #1 transfer to Silo #1 Conveyor 1.481

PF 1.482 Silo #1 Conveyor Discharge

DC. System 103A - Ore Fines Feed System

PF 1.483 Hopper (Loading)

PF 1.484 Hopper (discharge)

PF 1.485 Screw Conveyor transfer to Bucket Elevator

DD. System 103B - Ore Fines Feed System (Ore Fines Drying and Storage System)

S 2.316.1 Fluid Bed Dryer

S 2.316.2 Surge Bin

S 2.316.3 Dense Phase Pneumatic Conveying System

s 2.316.4 Ore Fines Silo, 30 ton (loading)

DE. System 104 - Fuel Oil Storage Tank

S 2.317 Fuel Oil Storage Tank, 250,000 gallons

DF. System 105 - Mobile Boiler

Mobile Boiler, 13.2 MMBtu 2.318

DG. System 106 - Autoclave Mixing Tank

2.319 Autoclave Mixing Tank Loading New DATE DIVISION OF ENVIRONMENTAL PROTECTION protecting the future for generations

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## BUREAU OF AIR POLLUTION CONTROL

### Facility ID No. A0005

# Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

S. Emission Units S2.210 and S2.211 location North 4,538.5 km, East 552.1 km, UTM (Zone 11)

S. System 19 - Roaster Circuit: Quenching Process

S 2.210

Roaster #1 quench tank

S 2.211

Roaster #2 quench tank

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

100% of all process emissions from S2.210 and S2.211 will be ducted to a control system consisting of one venturi wet dust scrubber per quench tank (VS-203 and VS-204, respectively). Emissions from VS-203 and VS-204 will be exhausted to the atmosphere through separate stacks. VS-203 and VS-204 will be operated in accordance with the manufacturer's recommendations at all times during operation of S2.210 and S2.211, including startup and shutdown.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

On and after the date of startup of S2.210 and S2.211, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stacks of VS-203 and VS-204 the following pollutants in excess of the following specified limits:

- a. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.84** pounds per hour for **VS-203** and **VS-204**, each.
- b. NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM (particulate matter) to the atmosphere will not exceed 1.84 pounds per hour for VS-203 and VS-204, each.
- c. NAC 445B.22017 (State Only Requirement) The opacity from the exhaust stacks of VS-203 and VS-204, each will not equal or exceed 20% in accordance with NAC 445B.22017.
- d. NAC 445.721 (Federally Enforceable SIP Requirement) The opacity from the exhaust stacks of VS-203 and VS-204, each will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. The maximum allowable throughput rate for \$2.210 and \$2.211 will not exceed 500.0 tons of ore per any one-hour period, each.
- S2.210 and S2.211 may operate 8,760 hours per year, each.
- NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

40 CFR Part 64 Compliance Assurance Monitoring Program

- a. Periodic Compliance Testing
  - (1) Permittee will conduct and record the following periodic compliance tests on the exhaust stacks of VS-203 and VS-204. The periodic compliance tests will be conducted on an annual basis with no more than one year and 90 days between compliance tests. The compliance tests will consist of three valid runs (except as provided under I.U.5 of this operating permit) at the maximum achievable throughput rates (subject to Condition S.4.a.(3) of this Section and not to exceed the maximum allowable throughputs as established in S.3.a. of this Section):
    - (i) A Method 201A performance test in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>, on each stack.
    - (ii) A Method 5 or 17 compliance test in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM, on each stack.
  - (2) Permittee may substitute the Method 5 or 17 test for the Method 201A test.
  - (3) Compliance tests required under S.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in S.3.a. of this Section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
  - (4) Concurrent with the periodic PM and PM<sub>10</sub> compliance tests, conduct and record a Method 9 visible emission test on the exhaust stacks of **VS-203** and **VS-204** each, in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial compliance test, then the visible emission test will be rescheduled as soon after the initial compliance test as practical, but not later than 30 days thereafter.

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## BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VI. Specific Operating Conditions (continued)

- S. Emission Units S2.210 and S2.211 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
     40 CFR Part 64 <u>Compliance Assurance Monitoring Program</u>

b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

(1) Monitor and record the ore throughput of \$2.210 and \$2.211 on a daily basis.

(2) Monitor and record the hours of operation of \$2.210 and \$2.211 on a daily basis.
 (3) Install, calibrate, operate and maintain devices for the measurement of the venturing

(3) Install, calibrate, operate and maintain devices for the measurement of the venturi pressure drop and water flow rate of VS-203 and VS-204, separately.

(4) Conduct and record a reading of the venturi pressure drops and water flow rates of VS-203 and VS-204 each, <u>based on a one-hour period</u>, once during each day of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.

(5) The indicator range for the venturi pressure drop for VS-203 and VS-204 each shall be maintained at or above 16 inches of water. The water flow rate for VS-203 and VS-204 each shall be maintained at or above 70 gallons per minute. Excursions shall be defined as anytime the venturi pressure drop and the water flow rate, based on a one-hour period, falls outside these indicator ranges.

Conduct and record an assessment of the visible emissions (excluding water vapor) from the separate exhaust stacks of VS-203 and VS-204 each, on a weekly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while S2.210 and S2.211 are operating and have the potential to create visible emissions. If VS-203 and VS-204 are shut down for maintenance, or repairs, the visible emissions assessment described herein will be conducted upon startup. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to S2.210 and S2.211 not operating or due to poor weather conditions.

(7) Install, calibrate, operate, and maintain devices for the measurement of the pressure in the pressure relief vents for S2.210 and S2.211. Record any monitored occurrences when the pressure reading falls outside of the specified operating range and record any corrective actions taken.

- (8) Maintain records of the specified operating range for the pressure relief vents on site and have available for inspection upon request. The specified operating range will be determined by the Permittee after installation of the monitoring devices.
- (9) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.

(10) The hourly throughput rate in tons per hour for \$2.210 and \$2.211 will be determined from the total daily throughput and the total daily hours of operation recorded above.

(11) The required monitoring established in b.(1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.210** and **S2.211** each, are operating:

i) The calendar date of any required monitoring.

(ii) The total daily throughput rate of ore, in tons, for the corresponding date.

(iii) The total daily hours of operation for the corresponding date.

(iv) The corresponding average hourly throughput rate of ore, in tons per hour. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in b.(1) and (2) above.

(v) Results of the one-hour period readings of the pressure drop and water flow rate across venturi wet dust scrubbers VS-203 and VS-204, each day that S2.210 and S2.211 each, are in operation.

- (vi) Results and verification of the weekly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- (vii) The Director must be notified within 24 hours for any event when the pressure relief vent(s) opens. The telephone number for the notification is (775) 687-9350.
- (viii) Permittee shall provide the Director, within 15 days after any opening of the pressure relief vents, information that includes at least the following:

(a) The identity of the pressure relief vent that opened.

- (b) The date, start and end time, and duration that the pressure relief vent was open.
- (c) An assessment of the cause of the events and any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Shielded Requirements

Compliance with conditions S.1 through S.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements (Revised as of February 2002):

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

NAC Requirements (Revised as of February 2003):

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).



# **BUREAU OF AIR POLLUTION CONTROL**

Facility ID No. A0005

Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section VI. Specific Operating Conditions (continued)

BK. Emission Units S2.028 through S2.031 and PF1.018 through PF1.021 Location North 4,536.0 km, East 554.8 km, UTM (Zone 11)

BK.	System 6	- Autoclave Silos #1 through #4	
s	2.028	Silo #1, 250 ton, loading	
PF	1.018	Silo #1, 250 ton, discharge	
S	2.029	Silo #2, 500 ton, loading	
PF	1.019	Silo #2, 500 ton, discharge	
S	2.030	Silo #3, 500 ton, loading	
PF	1.020	Silo #3, 500 ton, discharge	
S	2.031	Silo #4, 1,000 ton, loading	
PF	1.021	Silo #4, 1,000 ton, discharge	

Note: See Section VII.A. - Emission Caps

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## BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

DG. Emission Unit S2.319

Location North 4,535.96 km, East 554.77 km, UTM (Zone 11)

#### DG. System 106 - Autoclave Mixing Tank

S 2.319 Autoclave Mixing Tank Loading

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from \$2.319 will be ducted to a control system consisting of a wet scrubber (WS-206) with a maximum volume flow rate of 2,500 actual cubic feet per minute (acfm). WS-206 will be operated in accordance with the manufacturer's recommendations at all times during operation of \$2.319 including startup and shutdown. The capture efficiency of the control system will be 100% such that all process emissions from \$2.319 will be captured and ducted to WS-206.

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Emission Limits** 

- On and after the date of startup of \$2.319, Permittee will not discharge or cause the discharge into the atmosphere from the wet scrubber exhaust stack of WS-206 the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305 (Federally Enforceable Part 70 Program) The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.43** pounds per hour, nor more than **1.88** tons per year, based on a 12-month rolling period.

(2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed **0.43** pounds per hour, nor more than **1.88** tons per year, based on a 12-month rolling period.

(3) NAC 445B.22017 (Federally Enforceable SIP Requirement) - The opacity from the wet scrubber exhaust stack of WS-206 will not equal or exceed 20% in accordance with NAC 445B.22017.

### 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Operating Parameters** 

- a. The maximum allowable loading rate for **S2.319** will not exceed **10.0** tons of lime or soda ash per any one-hour period, nor more than **87,600** tons of lime or soda ash per year, based on a 12-month rolling period.
- b. S2.319 may operate 8,760 hours per year.

#### 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

a. Initial and Periodic Compliance Testing

- (1) Permittee will conduct and record the following initial and periodic compliance tests on the exhaust stack of WS-206. Within 60 days after achieving the maximum production rate at which S2.319 will be operated, but not later than 180 days after initial startup of S2.319, an initial compliance test will be conducted. The periodic compliance tests will be conducted on a once every five-year schedule with no more than five years and 90 days between compliance tests. The initial and periodic compliance tests will consist of three valid runs (except as provided under I.U.5. of this operating permit) and be conducted at the maximum achievable throughput rate (subject to Condition DG.4.a.(3) of this Section and not to exceed the maximum allowable throughput as established in DG.3 of this Section).
  - (i) Method 201A and 202 compliance tests in accordance with 40 CFR Part 51, Appendix M (or an alternative EPA reference method approved by the Director) for PM<sub>10</sub>.

(ii) Method 5 or 17 (with back-half catch) compliance tests in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director) for PM.

- (2) The Method 201A and Method 202 tests required in DG.4.a.(1) of this section may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 tests with back-half performed under this provision shall be considered PM<sub>10</sub> emissions for determination of compliance with the emission limitations established in DG.2 of this section.
- (3) Compliance tests required under DG.4.a.(1) of this Section that are conducted below the maximum allowable throughput, as established in DG.3 of this section, will be subject to the Director's review to determine if the throughputs during the compliance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the compliance tests do not provide adequate compliance demonstration, then the Director may order additional compliance testing.
- (4) Concurrent with each periodic PM compliance test, conduct and record a Method 9 visible emission test on the wet scrubber exhaust stack of WS-206 in accordance with 40 CFR Part 60, Appendix A (or an alternative EPA reference method approved by the Director). If visibility or other conditions prevent the opacity observations from being conducted concurrently with the compliance test, then the visible emission test will be rescheduled as soon after the compliance test as practical, but not later than 30 days thereafter.
- (5) Within 60 days after achieving the maximum production rate at which \$2.319 will be operated, but not later than 180 days after initial startup of \$2.319, conduct an initial opacity observations in accordance with Method 9 in Appendix A of 40 CFR Part 60. For purposes of determining initial compliance, the minimum total time of observation shall be 3 hours (30 6-minute averages). (40 CFR 60.11(b))



### **BUREAU OF AIR POLLUTION CONTROL**

Facility ID No. A0005

Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

# Section VI. Specific Operating Conditions (continued)

#### DG. Emission Units S2.319 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program - continued

b. Monitoring and Recordkeeping

On and after the date of initial startup, Permittee will:

(1) Monitor and record the loading rate of **S2.319** on a daily basis. At the end of each calendar month, record the total monthly loading rate and the total loading rate for the previous 12 months.

(2) Monitor and record the hours of operation of \$2.319 on a daily basis.

- (3) Install, calibrate, operate, and maintain devices for the measurement of the pressure drop and water flow rate through the wet scrubber (WS-206).
- (4) Monitor and record the pressure drop and water flow rate through the wet scrubber (WS-206) each day that S2.319 is in operation. Record any monitored occurrences when the pressure drop or water flow rate falls outside the specified operating range and record any corrective actions taken.
- (5) Conduct and record an assessment of the visible emissions (excluding water vapor) from **\$2.319** on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and while **\$2.319** is operating and has the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to **\$2.319** not operating or due to poor weather conditions.
- (6) Maintain records of the specified operating ranges for the wet scrubber (WS-206) on site and available for inspection upon request. The specified operating ranges will be determined by the Permittee based on operating experience and the manufacturer's recommendations.
- (7) Maintain records of monitoring data, compliance tests, and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (8) The hourly loading rate in tons per hour for **S2.319** will be determined from the total daily loading rate and the total daily hours of operation recorded above.
- (9) The required monitoring established in (1) through (8) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that S2.319 is operating:

(i) The calendar date of any required monitoring.

(ii) The total daily loading rate of lime or soda ash, in tons, for the corresponding date.

(iii) The total daily hours of operation for the corresponding date.

(iv) The corresponding average hourly loading rate of lime or soda ash, in tons per hour. The average hourly loading rate will be determined from the daily loading rate and the total daily hours of operation recorded in (1) and (2) above.

(v) The cumulative monthly loading rate of lime or soda ash, for each 12-month rolling period.

- (vi) Results of the daily readings of the pressure drop and water flow rate through the wet scrubber (WS-206) on S2.319, each day that S2.319 is in operation.
- (vii) Results and verification of the monthly visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

#### 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Shielded Requirements** 

Compliance with conditions DG.1 through DG.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of the application for a minor modification, received March 19, 2008 (Case #08AP0248).

**NAC Requirements** 

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of the application for a minor modification, received March 19, 2008 (Case #08AP0248).

\*\*\*\*\*\*\*\*\*\*\*\*End of Specific Operating Conditions\*\*\*\*\*\*\*\*

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# BUREAU OF AIR POLLUTION CONTROL

Facility ID No. A0005

Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

## Section VII. Emission Caps

A. Cap for Emission Units S2.028 through S2.031 and PF1.018 through PF1.021

### System 63 - Autoclave Silos 1 to 4

S 2.028 Silo #1, 250 ton, load

PF 1.018 Silo #1, 250 ton, discharge

S 2.029 Silo #2, 500 ton, load

PF 1.019 Silo #2, 500 ton, discharge

S 2.030 Silo #3, 500 ton, load

PF 1.020 Silo #3, 500 ton, discharge

S 2.031 Silo #4, 1,000 ton, load

PF 1.021 Silo #4, 1,000 ton, discharge

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from S2.028 through S2.031 will be ducted to vent filters with 100% capture.

b. Emissions from PF1.018 through PF1.021 will be controlled by enclosures that enclose each silo discharge point on all sides.

#### NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Emission Limits**

a. On and after the date of startup of **S2.028 through S2.031**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust vents of **S2.028 through S2.031**, the following pollutants in excess of the following specified limits:

(1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed 2.27 pounds per hour, total, nor exceed 1.08 tons per year, total, based on a 12-month rolling period.

(2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed 2.27 pounds per hour, total, nor exceed 1.08 ton per year, total, based on a 12-month rolling period.

(3) NAC 445B.22017 (State Only Requirement) - The opacity from the exhaust vents of S2.028 through S2.031 will not equal or exceed 20% in accordance with NAC 445B.22017.

(4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from the exhaust vents of S2.028 through S2.031 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

b. On and after the date of startup of PF1.018 through PF1.021, Permittee will not discharge or cause the discharge into the atmosphere from PF1.018 through PF1.021 combined, the following pollutants in excess of the following specified limits:

(1) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.211** pound per hour, total, nor exceed **0.398** ton per year, total, based on a 12-month rolling period.

(2) NAC 445B.305 (Federally Enforceable Part 70 Program) - The discharge of PM (particulate matter) to the atmosphere will not exceed **0.211** pound per hour, total, nor exceed **0.398** ton per year, total, based on a 12-month rolling period.

(3) NAC 445B.22017 (State Only Requirement) - The opacity from PF1.018 through PF1.021 each will not equal or exceed 20% in accordance with NAC 445B.22017.

(4) NAC 445.721 (Federally Enforceable SIP Requirement) - The opacity from PF1.018 through PF1.021 will not equal or exceed 20% for a period or periods aggregating more than 3 minutes in any 1 hour, in accordance with NAC 445.721.

#### 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Operating Parameters

a. The maximum allowable loading rate for **S2.028 through S2.031** will not exceed **420.0** tons of lime or soda ash per any one-hour period, total, nor more than **398,480** tons of lime or soda ash per year, total, based on a 12-month rolling period.

b. The maximum allowable discharge rate for PF1.018 through PF1.021 will not exceed 105.0 tons of lime or soda ash per any one-hour period, total, nor more than 398,480 tons of lime or soda ash per year, total, based on a 12-month rolling period.

c. S2.028 through S2.031 and PF1.018 through PF1.021 may operate 8,760 hours per year, each

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Nevada Department of Conservation and Natural Resources • Division of Environmental Protection

# BUREAU OF AIR POLLUTION CONTROL Facility ID No. A0005 Permit No. AP1041-0739.02

# CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

# Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee Section VII. Emission Caps (continued)

- A. Cap for Emission Units S2.028 through S2.031 and PF1.018 through PF1.021 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - a. Monitoring, Recordkeeping, Reporting and Compliance

On and after the date of initial startup, Permittee will:

- Monitor and record the total amount of lime or soda ash unloaded from the delivery truck(s) to S2.028, S2.029, S2.030 or S2.031 and the duration of the truck unloading process each day lime or soda ash is delivered. At the end of each calendar month, record the total monthly lime or soda ash throughput and the total lime or soda ash throughput for the previous 12 months.
- (2) Monitor and record the amount of lime or soda ash discharged from PF1.018 through PF1.021 on a monthly basis. The amount of lime or soda ash will be based on purchasing receipts and measurements of the level of lime or soda ash in the silo at the beginning and end of the month. At the end of each calendar month, record the total lime or soda ash throughput for the previous 12 months.
- (3) Monitor and record the hours of operation of PF1.018 through PF1.021 on a monthly basis.

(4) Install, calibrate, operate and maintain a device for the measurement of the level of lime or soda ash in each silo.

(5) Conduct and record an inspection of the vent filters on **S2.028 through S2.031** on a **quarterly** basis noting the condition of the filter material and housing. Record any corrective actions taken.

(6) Conduct and record an inspection of the enclosures on PF1.018 through PF1.021 on a monthly basis to verify that the enclosures are intact. Record the inspection results and any corrective actions taken.

- (7) Conduct and record an assessment of the visible emissions (excluding water vapor) from the exhaust vent of \$2.028 through \$2.031 and from PF1.018 through PF1.021 on a monthly basis. If the visible emission survey detects any visible emissions, the Permittee will conduct and record a Method 9 (or an alternative EPA reference method approved by the Director) visible emissions test. Each visible emissions assessment and Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, and \$2.028 through \$2.031 and PF1.018 through PF1.021 are operating and have the potential to create visible emissions. It will be noted in a contemporaneous log if a visual emissions assessment could not be conducted due to \$2.028 through \$2.031 and PF1.018 through PF1.021 not operating or due to poor weather conditions.
- (8) Maintain records of monitoring data, compliance tests and supporting information for a minimum of 5 years following the date of such measurements, reports or records pursuant to Section V.A of this permit. The most recent 2 years will be retained on site and made available for inspection upon request.
- (9) The hourly discharge rate in tons per hour for PF1.018 through PF1.021 will be determined from the total monthly throughput and the total monthly hours of operation recorded above. This calculated rate will be used for compliance demonstration with the throughput limitation established in A.3.b. of this Section.
- (10) The hourly loading rate in tons per hour for **\$2.028** through **\$2.031** will be determined from the total daily throughput and the total daily hours of operation recorded above. This calculated rate will be used for compliance demonstration with the throughput limitation established in A.3.a of this Section.
- (11) The required monitoring established in (1) through (10) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that S2.028 through S2.031, and PF1.018 through PF1.021 each, are operating:
  - (i) The calendar date of any required monitoring.
  - (ii) The total daily and monthly throughput rate of lime or soda ash, in tons, for the corresponding date.

(iii) The total daily and monthly hours of operation for the corresponding date.

(iv) The corresponding average hourly throughput rate of lime or soda ash, in tons per hour. The average hourly throughput rate will be determined from the daily and monthly throughput rate and the total daily and monthly hours of operation recorded in (1) through (3) above.

(v) Results and condition of the quarterly inspections of the vent filters on S2.028 through S2.031 each, and any corrective actions taken.

- (vi) Results and verification of the **monthly** visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Shielded Requirements

Compliance with conditions A.1 through A.4 of this Section will be deemed compliance with the applicable requirements specified below, as of the issuance date of this operating permit.

Applicable SIP Requirements:

NAC 445.732 (Industrial Sources) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

**NAC Requirements:** 

445B.22033 (Sources not Otherwise Limited) - see streamline analysis provided in Appendix 4 of operating permit renewal application, received September 20, 2006 (Case #07AP0121).

## **BUREAU OF AIR POLLUTION CONTROL** Permit No. AP1041-0739.02

# Facility ID No. A0005

CLASS I AIR QUALITY OPERATING PERMIT SPECIFIC OPERATING REQUIREMENTS

Issued to: BARRICK GOLDSTRIKE MINES, INC., as Permittee

Section X. Amendments

June 30, 2008 - Minor Revision. Add specific operating conditions for pressure relief vents in System 19, Section VI.S. Remove "lime" from System 63 description. Add soda ash as a material that can be used in System 63, Section VIIA. Add new autoclave mixing tank, System 106, emission unit S2.319. PM and PM<sub>10</sub> emission limits will increase by 1.88 tons per year as a result of the addition of System 106. (Air Case #08AP0248).

#### This permit:

- Is non-transferable. (NAC 445B.287) Part 70 Program
- Will be posted conspicuously at or near the stationary source. (NAC 445B.318)(State Only Requirement)
- 3. Will expire and be subject to renewal five (5) years from July 17, 2007. (NAC 445B.315) Part 70 Program
- A complete application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 240 calendar days before the expiration date of this operating permit. (NAC 445B.323.2) Part 70 Program
- Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340)(State Only Requirement)

THIS PERMIT EXPIRES ON:	July 1'			
	Signature	Manfel	sl_	
	Issued by:	Matthew A. DeBurle, P.E. Supervisor, Class I Permitting Branch Bureau of Air Pollution Control		
fv 03/07 rp 06/08	Phone:	(775) 687-9391	Date:	June 30, 2008